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A

BRIEF ACCOUNT

OF THE

APPLICATION AND USES

OF THE

UTERO-ABDOMINAL SUPPORTER,

A NEW INSTRUMENT

FOR THE RELIEF AND CURE OF

PROCIDENTIA AND PROLAPSUS UTERI,

INVENTED BY THE LATE

A. G. HULL, M. D.

OF NEW-YORK.

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DIRECTIONS FOR APPLICATION.

Measure the Patient around the hips; take half that measure, and if an instrument from the centre of the front pad to the middle of the back pad, measured on the inside of the cushion of the spring, is equal to that half, it will generally fit the Patient.

Place the large pad A in front, between the hips, with the short side down, immediately above the bone below; and the middle of the small pad B upon the centre of the back, opposite. The cushioned spring C to fit the hip comfortably; and bring the strap D around the opposite hip and secure on the knobs H. The pressure with the front pad is made equal by sliding the wedge I backwards or forwards.

Fix the loop of the perineum strap F upon the middle of the back pad, carrying it downward and forward; bring up before and secure upon the knobs H.

The wedge sliding in the pocket G of the perineum strap, must be so placed that the pressure will be directly upon the perineum. When properly adjusted, secure the wedge from moving, by a few stitches with strong thread or silk, and protect this part of the instrument with a few folds of linen. The size of the Supporter may be altered by taking in or letting out the spring at E.

A BRIEF ACCOUNT, &c.



THIS Apparatus was invented by the late Dr. HULL, with a view to the radical cure of *Prolapsus Uteri*, by external pressure. It was thought by the Doctor, that at least in a very great majority of cases, that disease owed its existence to a descent of the *abdominal viscera* upon the *uterus* or *bladder*. If it be assumed, that the hypogastrick and perineal muscles are diminished in tone by gestation or constitutional causes, so as not to be able to re-act with sufficient strength against the combined depressing force of the *diaphragm* and the upper portions of the *recti* and *obliqui*; as for example, in the acts of labour, going to stool, lifting, coughing, or the like, the necessary result will be an enlargement of the hypogastrick portion of the abdomen, and a tendency, to a greater or less extent, of the *viscera* to crowd down into the *hypogastrium* and *pelvis*. Such a state, attended by anomalous and slightly distressing symptoms, might exist a long time before the *viscera* should be permanently dislodged; that is to say, before the upper portion of the abdominal cavity becomes permanently narrower, and the lower more capacious than they should be.

The *uterus*, in its unimpregnated state, as also the urinary bladder, when quite empty, are placed by nature below the reach of the downward forces of the muscular wall of the belly; they are within the sphere of the upward or re-acting forces of the lower portion of the *parietes*, and therefore are they not sustained *in situ* by actual ligaments. But when, from the causes above enumerated, the lower part has lost its relative strength, and the force from above reaches even the *pelvic viscera*, the *uterus*, lacking ligamentous attachments, must be thrown down upon the *vagina* and *perineum*—the disease must be developed.

The supposition of a gradual displacement of the *abdominal viscera* downward upon the *pelvic viscera*, is ably elucidated by the venerable and acute *Scarpa*,* and other eminent writers upon the causes of **HERNIA**. Dr. HULL's immense experience in the cure of *Reducible Hernia*, led him to a firm conviction that falling of the womb has a like proximate cause with *Hernia*; and certainly, the very excellent results already produced by his New Apparatus, go very far to sustain his view of the subject.

This Apparatus compresses, by a broad, soft, elastic pad, the whole *hypogastrium*, and the pressure is so contrived as to operate obliquely upwards and backwards. The effect of this pad is to give the weakened lower portion of the abdominal mus-

* *Traité des Hernies*. Pref.

cles a congenial support, which, at the same time that it diminishes their labor, stimulates them by the well-known power of mechanical pressure upon muscular tissue, to a permanent renewal of their vigor. It reduces the distended *hypogastrium*, aids the upward forces of the belly, and by its direction, upwards and backwards, directly relieves the *pelvic viscera* from the unnatural pressure of the downward forces; thus, when the apparatus is carefully and properly fitted to the peculiar form of the patient, it invariably affords the most immediate immunity from the distressing "dragging and bearing down" sensations which accompany nearly all cases of visceral displacements, and its skilful application is always followed by an early confession of radical relief from the patient herself.

It has been thought, by two distinguished medical men of this city, that this pad, by pressing obliquely upwards, had the effect of lifting the *peritoneum*, and consequently its uterine duplicatures, and the *uterus* itself upwards. It is possible this effect may be produced in very aggravated cases of deep dislocation of the *uterus*; but perhaps the foregoing rationale of the late Dr. HULL will be found more in accordance with future observations.

In cases of very long standing, the posterior portion of the *vagina* becomes very much distended, and the whole of the soft parts, closing the lower

outlet of the *bony pelvis*, assumes a pouch-like figure; and the unnatural capacity is filled by the *uterus* and *bladder*, held down by the displaced *abdominal viscera*.

Cases of this kind are much more frequent than is generally supposed, being taken for "inward piles," or some anomalous affection of the *bladder* or *rectum*, and in vain treated as such. This pouching of the *perineum* extends posterior to the *anus*; indeed the *anus* is generally the centre of the exterior elevation or outer wall of the pouch.

Dr. HULL found the foregoing portion of his Apparatus incompetent to the entire relief of all cases of this species of uterine displacement; the *perineum* sometimes losing so much of its muscular and organic contractility, as even when the downward forces are stayed by the Hypogastric Pad, not to resume its natural dimensions and situation. In cases of this character, although the abdominal support of the Apparatus does certainly relieve many of the distressing sensations of the patient, yet the distended floor of the *pelvis* remains a *cul de sac* for the reception of the *viscera*, whenever that Apparatus is removed for a length of time.

To obviate this liability, as also to give tone to the *vagina* by the stimulus of mechanical pressure, thereby to diminish its calibre and restore it to its natural situation, the Doctor applies against the *perineum*, externally, a prism shaped cushion or

block, (made of sponge firmly encased in cloth;) this being held in its place by an elastic strap passing between the thighs and over the perineal region, in the manner of a T bandage. This perineal wedge, cushion, or block, with its elastic strap, rising and sinking in perfect accordance with the respiratory motions of the *diaphragm* and *abdominal walls*, and under all circumstances keeping up an equal, firm, and to the patient, agreeable pressure upward, is, in all respects, a most admirable substitute for any and all of the intervaginal pessaries of our existing surgery.

Pessaries are liable to so many objections, a few of which are of a very serious character, that most physicians of sufficient acumen and experience to distrust the rules and routine of the books, have almost totally given over their application.

1. They are thrust into the *vagina*, and rest in its posterior portion against the *rectum* behind, and the *perineum* below, where, if the pouch above named do not already exist, they are very sure to produce it, in more than 19 out of 20 instances; thus either increasing a most unhappy existing feature of the malady, or producing it where it does not exist.

The writer of this paper has frequently seen cases of very aggravated *posterior visceral prolapsus*, which, beyond a doubt, the various pessaries of the day have either confirmed or produced.

2. By irritating the mucous lining of the *vagina*, they excite *fluor albus*.

3. By irritating the *os tinæ*, they are apt to awaken schirrosity of that part ; or where schirrosity exists, to PRODUCE CANCER OF THE WOMB.

4. They interrupt sexual intercourse.

5. They produce disease of the *rectum*, piles or costiveness, by pressing constantly against that part ; and

6. They never remove the disease against which they are applied.

To these important objections may be added, the unpleasant and disgusting necessity to which they subject the patient, of submitting to their original introduction and frequent replacing, by her physician, and in case of his absence or death, or her own removal, by strangers.

Immediately subsequent to the promulgation of Dr. HULL's New Apparatus, in general terms, various attempts were made, on the part of several young physicians, to divide the fame and proceeds of his invaluable invention, by means of straps and belts attached to internal pessaries. One of these consists of a broad riding belt, placed above the crest of the iliac bones, thereby

compressing above the *hypogastrium*, and consequently increasing the downward pressure and aggravating the balance against the hypogastrick and perineal forces; whilst, from below, nothing is done but to introduce an ivory staff with a broad head into the *vagina*, upon which the *uterus* is received, the staff being held in its place by a strap, to which the lower end is attached, by means of a spiral wire.

This, with all co-temporaneous attempts to imitate Dr. HULL's Instrument, is, to say the least of it, only a pseudo-improvement upon the old pessaries, and liable to one objection, at least, to which they are not:—It increases the loss of muscular equilibrium, which is certainly the essential and nearest cause of the malady it professes to cure. Besides, it assumes the old notion, that the *uterus* displaces itself by its own weight, and that is the only *viscus* to be replaced; an idea which originated in the very darkest days of pathological anatomy, and which cannot be entertained after one instant of scientific reflection. What, a fleshy body, having no muscular attachments whatever, weighing from 6 to 12 drachms at most, surmounted by the whole body of the *abdominal viscera*, and enclosed in muscular walls of immense power, takes a start without any extrinsic impetus, and sinks down to the flooring of its enclosure! And still worse, its resolution to descend is so powerful and constant, as to require a column of ivory with a strong entablature to re-

sist its fall!! If these severe appliances were absolutely necessary, what would become of the *os tinæ*, the focus of such immense attrition?

The merit of Dr. HULL consists in treating the malady called *Prolapsus Uteri*, not as a displacement of the womb, merely, but as a loss of that perfect muscular equilibrium between the upper and lower portions of the abdomen, which is essential to the preservation of the relative situations of the *viscera* it contains, and also a dislocation of the *intestines* and *omentum*, downward upon the *uterus* and *bladder*; and in some cases, as especially dependant upon a pouch-like relaxation of the whole perineal region. His method of cure consists in giving the weakened and relaxed portions of the muscular walls of the abdomen adequate mechanical support, which directly replaces the *viscera*, and gives back to the weakened walls their lost tone. There is another point of view in which his New Apparatus may be advantageously considered. It may be regarded as rendering the *pelvis* a complete basin. In the large *pelvis*, the front or hypogastrick aspect loses its bony wall, and in the lesser, the lower or perineal portion is deprived of its bony plate. It is evident, from the general shape and arrangement of the pelvic bones, that nature has designed them to receive, and almost counterpoise the enormous muscular force of the upper part of the abdomen, but the necessary vacancies in the regions above named are only protected by muscles. And when,

from debility, these muscles become inadequate to their important task, the Apparatus of Dr. HULL being placed against their whole outward surface, supplies not only their deficiency, but re-acts with the equal steadiness and security of the bony walls, of which they may be regarded as artificial propagations. But, be the rationale as it may, the unfailing certainty of immediate relief and ultimate cure, in all cases of *Prolapsus*, which can be reduced by the hand or by position, has been fully demonstrated. Since the first Instrument was applied, two and a quarter years ago, about *seven hundred Utero-Abdominal Supporters* have been applied with gratifying success, without the use of Pessaries. No case has yet occurred where the Supporters have not effected all that any Pessary can accomplish, without being obnoxious to any objection, or attended with the least injury to the health of the patients, and with a very considerable number of radical cures already accomplished.

These Instruments have been found very useful in cases of costiveness, *hemorrhoids*, and *prolapsus ani*, where these maladies were traceable to relaxation of the lower belly.

ORDERS FOR
 DR. A. G. HULL'S TRUSSES
 AND
 ABDOMINAL SUPPORTERS,

Directed to the Office, Astor's Hotel, No. 4 Vesey Street, New York,
 WILL BE PUNCTUALLY ATTENDED TO.





- A. A. Front Pad.**
- B. B. Back Pad.**
- C. Spring Cushioned.**
- D. Strap continued from back Pad.**
- E. Screw for securing the Spring.**
- F. F. Perineum Strap.**
- G. Pocket containing the Wedge.**
- H. H. Knobs.**
- I. Wedge.**

